

What is claimed is:

1. A double belt transport system having an upstream end and a downstream end for moving a mailpiece from the upstream end into a printing area of a printer, wherein the mailpiece has a lower surface and an opposing upper surface to be printed by a print head located in the printing area, said transport system comprising:

an upper looping belt having a straight section covering the printing area, wherein the straight section defines a registration plane regarding the print head; and  
a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form an ingest nip for providing a friction force to move the mailpiece into the printing area for printing.

2. The double belt transport system of claim 1, further comprising a lifting mechanism located below the lower surface of the mailpiece for urging the mailpiece to move towards the straight section of the upper looping belt so that the upper surface of the mailpiece is located substantially in the registration plane when the mailpiece is moving into the printing area.

3. The double belt transport system of claim 2, further comprising a shield plate having a reference surface facing the lifting mechanism and located substantially in the registration plane in the printing area so as to allow the upper surface of the mailpiece to press against the reference surface for registration when the mailpiece is urged by the lifting mechanism to move towards the upper looping belt when the mailpiece is moving into the printing area.

4. The double belt transport system of claim 1, further comprising an upstream pulley and a downstream pulley defining a tangent plane therebetween, wherein the tangent plane is substantially parallel to the registration plane, and wherein the upstream and downstream pulleys push against the upper looping belt to define the straight section of the upper looping belt.

5. The double belt transport system of claim 1, further comprising a deck having an upstream section located adjacent to the intake nip for supporting the mailpiece when the mailpiece moves towards the ingest nip.

6. The double belt transport system of claim 1, further comprising means for driving the upper looping belt and the lower looping belt for reducing shearing on the mailpiece.

7. The double belt transport system of claim 1, further comprising a velocity measurement mechanism operatively connected to at least one of the looping belts so as to match the printing speed of the print head to moving speed of the mailpiece in the printing area.

8. The double belt transport system of claim 1, wherein the print head comprises a plurality of inkjet nozzles for printing.

9. A method of moving a mailpiece from a downstream end towards an upstream end into a printing area, wherein the mailpiece has a surface to be printed by a printer in the printing area having a length, said method comprising the steps of:

providing an upper looping belt having a straight section running the length of the printing area for defining a registration plane for printing; and  
providing a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section of the lower looping belt and the straight section of the upper looping belt form an ingest nip in order to provide a friction force to move the mailpiece into the gap towards the printing area so that the mailpiece surface is substantially located on the registration plane.

10. The method of claim 9, further comprising the step of urging the mailpiece to move towards the straight section of the upper looping belt so as to ensure that the mailpiece surface is located substantially on the registration plane when the mailpiece is moved into the printing area.

11. A printer having an upstream end and a downstream end for printing a mailpiece on an upper surface thereof, said printer comprising:

a print head located above a printing area; and  
a double belt transport system for moving the mailpiece from the upstream end into the printing area, wherein the mailpiece has a lower surface opposing the upper surface, and wherein

the double belt transport system comprises:

an upper looping belt having a straight section covering the printing area, wherein the straight section defines a registration plane regarding the print head; and  
a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form an ingest nip for providing a friction force to move the mailpiece into the printing area for printing.

12. The printer of claim 11, further comprising a lifting mechanism located below the lower surface of the mailpiece for urging the mailpiece to move towards the straight section of the upper looping belt so that the upper surface of the mailpiece is located substantially in the registration plane when the mailpiece is moving into the printing area.

13. The printer of claim 12, further comprising a shield plate having a reference surface facing the lifting mechanism and located substantially in the registration plane in the printing area so as to allow the upper surface of the mailpiece to press against the reference surface for registration when the mailpiece is urged by the lifting mechanism to move towards the upper looping belt when the mailpiece is moving into the printing area.

14. The printer of claim 11, further comprising an upstream pulley and a downstream pulley defining a tangent plane therebetween, wherein the tangent plane is substantially parallel to the registration plane and wherein the upstream and downstream pulleys push against the upper looping belt to define the straight section of the upper looping belt.

15. The printer of claim 11, further comprising a deck having an upstream section located adjacent to the intake nip for supporting the mailpiece when the mailpiece moves towards the ingest nip.

16. The printer of claim 11, further comprising means for driving the upper looping belt and the lower looping belt for reducing shearing on the mailpiece.

17. The printer of claim 11, further comprising a velocity measurement mechanism

operatively connected to at least one of the looping belts so as to match printing speech of the print head to moving speed of the mailpiece in the printing area.